



RESPONSE TO OFFICE ACTION
U.S. Serial No. 10/636,066

REMARKS

Assignee and the undersigned attorney thank Examiner Duong for his review of this patent application and for the allowance of claims 1-8. Assignee respectfully requests reconsideration of claims 9-14.

The Action rejected claims 9 and 10 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,382,829 to *Inoue*. (“*Inoue*”). The Action rejected claims 11-14 under 35 U.S.C. § 103(a) as being unpatentable over *Inoue* in view of U.S. Patent No. 6,150,905 to *Nishijima* (“*Nishijima*”).

Claim Rejections

Claims 9-13

The Action rejected claims 9 and 10 as anticipated by *Inoue* and rejected claims 11-13 as being obvious in view of the combination of *Inoue* and *Nishijima*. Claim 9 is reproduced below:

9. A device comprising a molded electronic component designed to comply with preset operating characteristics comprising a substrate for holding passive circuit elements and a material molded about the substrate and circuit elements, wherein the interaction of the material and the circuit elements forms a circuit causing the component to perform at the preset operating characteristics.

Contrary to the Examiner’s assertions, *Inoue* does not anticipate claim 9 because it fails to teach each and every element of claim 9.

The Examiner incorrectly asserts that *Inoue* teaches all of the elements of claim 9 in a single paragraph on page 2 of the Action. Specifically, *Inoue* does not teach or suggest a

material molded about a substrate and circuit elements, wherein the interaction of the molded material and the circuit elements forms a circuit causing the component to perform at the preset operating characteristics.

As explained in the examples described at page 5, line 9 and page 13, line 17 of the present application, a molded material interacts with the other passive circuit elements such that the molded material itself is a part of the final circuit that has the desired operating characteristics. For example, if polypropylene is used as the molding material, the electrical performance of the circuit formed by the other passive circuit elements changes as affected by the polypropylene's electrical properties. It is desirable that the molded material interacts with the other passive circuit elements.

In stark contrast, *Inoue* discloses a semiconductor for use in a microwave band. Unlike the passive circuit disclosed in the present application, *Inoue* requires a bias voltage in order for the disclosed semiconductor to perform as desired. *Inoue* describes stacking a foldable, flexible film substrate 1 with a semiconductor chip 2 and other circuit elements on it. Semiconductor chip 2 is electrically connected to circuit elements 3c and 3d, elements that are referred to by the Examiner in the Action. Numeral 3c designates a meandering type inductor for adjusting inductance when a bias voltage is applied to the high frequency semiconductor chip 2, and numeral 3d designates a spiral type inductor similarly for adjusting inductance when bias voltage is applied to the high frequency semiconductor chip 2. See col. 1, lines 22-28. The upper metal wiring patterns 3c and 3d are respectively

connected to the high frequency semiconductor chip 2 by wire 6 of gold or the like. *See* col. 1, lines 33-36.

Before molding, the surrounding volume of the semiconductor chip 2 is filled with a spacer material 7 that has a low dielectric constant and high insulating properties, such as glass. *See* col. 4, lines 10-15. Reference numeral 8 designates a molding resin around all of the circuit elements. By structuring the device in this way, Inoue is able to “isolate electrically the semiconductor chip from inductors 3c and 3d, resulting in no deterioration of high frequency characteristics” of the semiconductor device. *See* col. 4, lines 60-62. Thus, *Inoue* teaches a device where a spacer material 7 and resin 8 are used to insulate and isolate circuit elements from one another, not a device wherein interaction of the molded material and the circuit elements forms a circuit causing the device to perform at the preset operating characteristics.

In sum, there is nothing in *Inoue* to teach or suggest a material molded about passive circuit elements on a substrate, wherein the molded material and circuit elements form a circuit causing the molded electronic component to perform at preset operating characteristics, as recited in claim 9. Because *Inoue* fails to teach or suggest each and every element of claim 9, the Examiner should withdraw the rejection of claim 9 under 35 U.S.C. § 102(b), and claim 9 should be allowed. Inasmuch as claims 10-13 depend from and thereby include the limitations of independent claim 9, claims 10-13 should also be allowed for at least such dependencies.

Claims 11-13 should also be allowed for the reason that there is no motivation or suggestion to combine *Inoue* and *Nishijima* as suggested by the Examiner. A *prima facie* case of obviousness requires some suggestion or motivation in the art to combine the references. MPEP § 2143. The Examiner's asserted motivation for combining *Inoue* with *Nishijima* is "in order to provide a fine adjustment of electromagnetic coupling between the equipment." However, the device recited in claims 11-13 does not create electromagnetic coupling with the equipment with which those embodiments operate and that is not a goal of the present application. Moreover, *Inoue* describes a semiconductor using inductors, while *Nishijima* describes a dielectric filter that uses cavities to resonate the electrical circuit. These two devices are simply not compatible with one another, and no one skilled in the art would have any motivation to combine the disclosures of *Inoue* and *Nishijima*. For these reasons, the combination of *Inoue* and *Nishijima* suggested by the Examiner is not proper. Thus, the § 103(a) rejection of claims 11-13 should be withdrawn, and claims 11-13 should be allowed for this additional reason.

Claim 14

The Action rejected claim 14 as being obvious in view of the combination of *Inoue* and *Nishijima*. Claim 14 is reproduced below:

14. A method for making an encapsulated electronic component comprising:
- (a) designing a circuit to operate at a first set of operating characteristics;
 - (b) encapsulating the circuit in a particular material;
 - (c) retesting the encapsulated circuit to determine a second set of operating characteristics;

(d) determining whether the second set of operating characteristics matches a predetermined set of operating characteristics for the encapsulated component; and

(e) modifying, if necessary, the design of the circuit to account for the effect of the encapsulating material so that the overall encapsulated component performs at the predetermined set of operating characteristics.

In an identical manner as in the previous two office actions (which each rejected claim 14 as obvious in view of a different reference combined with *Nishijima*), the Action merely states: “Regarding claim 14, the structure as mentioned above can performed [sic] the method claim.” However, **claim 14 does not recite a method performed by the structure recited in any of claims 9-13, but rather claim 14 recites a method of making an encapsulated electronic component.** *Inoue* and *Nishijima*, alone or in combination, do not teach or suggest the subject matter recited in claim 14.

For example, *Inoue* and *Nishijima* do not teach or suggest at least any of the following as recited in claim 14:

- retesting the encapsulated circuit to determine a second set of operating characteristics;
- determining whether the second set of operating characteristics matches a predetermined set of operating characteristics for the encapsulated component;
- modifying, if necessary, the design of the circuit to account for the effect of the encapsulating material so that the overall encapsulated component performs at the predetermined set of operating characteristics.

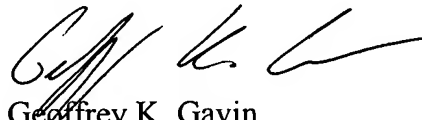
Additionally, claim 14 should also be allowed for the reason that there is no motivation or suggestion to combine *Inoue* and *Nishijima*, as explained above by Assignee with respect to

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claims 11-13. For these reasons, the Examiner should withdraw the rejection of claim 14 under 35 U.S.C. § 103, and claim 14 should be allowed.

The foregoing is submitted as a full and complete response to the Office Action mailed December 22, 2005. Assignee submits that claims 9-14 are allowable for at least the reasons set forth above, and allowance of these claims is respectfully requested. The preceding arguments in favor of patentability are advanced without prejudice to other bases of patentability. Assignee earnestly believes all claims are now in condition for allowance. The undersigned attorney believes no fees are due with this submission; however, the Commissioner is authorized to debit deposit account no. 11-0855 to the extent necessary if fees are due.

Respectfully submitted,



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